

REMARKS

Claims 1, 4, 5 and 12 have been amended to recite that the lithium transition metal complex oxide containing Ni and Mn as transition metals, having a layered structure and containing fluorine is obtained by adding a fluorine compound to raw materials used to formulate said lithium transition metal complex oxide. This amendment is supported in the specification by the description on page 10, lines 14-19.

New dependent claims 24, 26 and 28, which depend on claims 1, 4 and 5, respectively, have been added to the application and recite that the fluorine compound is LiF. This amendment is supported in the specification by the description on page 10, lines 18-19.

New claims 25, 27 and 29, which depend on claims 1, 4 and 5, respectively, have been added to the application and recite that the fluorine content of the of said lithium transition metal complex oxide is between 100 ppm and 20,000 ppm.. This amendment is supported in the specification by the description on page 10, lines 7-8.

Claims 2, 10, 22 and 23 have been canceled.

Claim Rejections - 35 U.S.C. § 103

Referring to the Action, claims 1, 2, 4-10, 12, 14-23 stand

rejected under 35 U.S.C. § 103(a) as being unpatentable over Kazuhara (JP 2002-100357) in view of Yamaura (JP 08-213014). Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kazuhara in view of Yamaura and further in view of Goto.

Applicants respectfully submit the the proposed modification of Kazuhara according to the teachings of Yamaura, alone or in combination with Goto, will not result in the nonaqueous electrolyte secondary battery of the present invention in which the positive electrode material is a mixture containing a lithium transition metal complex oxide and lithium cobaltate, the lithium transition metal complex oxide contains Ni and Mn as transition metals, has a layered structure and contains fluorine and is obtained by adding a fluorine compound to raw materials used to formulate said lithium transition metal complex oxide.

Yamaura discloses a fluorination treatment of a lithium transition metal composite oxide particle that is conducted with a fluorine compound represented by, for example, $R_1R_2R_3R_4NF$. As shown in Fig. 1 and described in paragraph [0030] of Yamaura, OH groups on the surface of the lithium transition metal complex oxide particle are replaced with fluorine atoms. Other fluorination methods for replacing OH groups on the surface of the lithium transition metal complex oxide particle disclosed in Yamaura

(paragraph [0019]) include a method of reacting the particle directly with F_2 gas, contacting the particle with NF_3 gas, using AHF (Anhydrous Hydrogen Fluoride), and photochemical fluorination by using a perfluorocompound.

In the present invention, on the other hand, a fluorine compound is added to raw materials used to formulate the lithium transition metal complex oxide and fluorine exists inside the lithium transition metal complex oxide. Applicants believe that oxygen sites existing inside of the lithium transition metal complex oxide are replaced with fluorine atoms. In any event, it is clear from the distinct nature of the methods of the present invention and that of Yamaura for combining fluorine with the lithium transition metal complex oxide that the structure of the lithium transition metal complex oxide of the present invention is different from the structure of Yamaura in which fluorine must exist only on the surface of the lithium transition metal composite oxide.

Yamaura also does not disclose LiF as the fluorine compound to be used in the fluorination method and does not disclose a fluorine content between 100 ppm and 20,000 ppm as now recited in claims 24-29.

Goto does not overcome the deficiencies of Kazuhara and

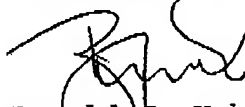
Yamaura in obtaining the present invention.

Moreover, the use of a mixture of the lithium transition metal complex oxide and lithium cobaltate as the positive electrode material according to the present invention, reduces gas generated when the battery is stored in the charged state at high temperature (page 25, line 14 to page 26, line 1 of the specification of the present application). This effect is an unexpected result which is neither disclosed nor suggested by the combination of Yamaura and Kazuhara (and Goto) and rebuts any prima facie obviousness alleged by the Office to be supported by said combination.

The foregoing is believed to be a complete and proper response to the Office Action dated June 26, 2008.

In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension and any additional required fees may be charged to our Deposit Account No. 111833.

Respectfully submitted,
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